

**INTEGRATED SPACE COMMAND & CONTROL  
CONTRACT (ISC2)  
  
STATEMENT  
  
OF  
  
OBJECTIVES (SOO)**

## 1.0 Introduction

1.1 The Integrated Space Command and Control (ISC2) contract will provide operational capabilities greatly enhancing commonality, flexibility, and interoperable command and control for Strategic and Theater Warfighters. In addition, ISC2 will facilitate a new business paradigm for the Strategic and Nuclear Deterrence C2 (SNDC2) System Program Office (SPO) built around the tenets of Total System Performance Responsibility (TSPR), smaller SPO staffs, a long-term partnership with industry, and evolutionary acquisition.

1.2 The driving operational emphasis for this new direction is the NORAD USSPACECOM Warfighting Support System (N/UWSS) initiative—a CINC endorsed battle management/command and control effort (BM/C2) documented in a JROC validated Mission Need Statement, dated 18 May 98. N/UWSS is targeted at reducing total cost of ownership, increasing system interoperability, evolving to integrated C2 architectures that more readily adapt to mission change, and ensuring mission integrity and continuity of operations throughout the evolutionary process.

1.3 ISC2 work will be concentrated in the following areas: (a) sustainment of new and existing ISC2 systems, (b) migration of existing ISC2 systems to a common integrated architecture, (c) new C2 capability development and fielding in a common integrated ISC2 architecture, (d) achieving interoperability and collaboration among ISC2 operation centers, (e) enabling and performing external integration of the ISC2 systems with Air Force, DoD, and other interfacing systems with emphasis on operation center/node interoperability, and (f) organizational level maintenance of ISC2 systems.

1.4 The ISC2 system engineering approach is governed by three elements: (a) the As-Is operational system (existing system architecture with associated performance requirements); (b) the Users' Integrated C2 Vision; and (c) the ISC2 Master Evolution Plan (IMEP) (the plan to evolve to the target system architecture). The Users' Integrated C2 Vision and objectives are defined in the N/UWSS Operational Architecture, the MCCC Consolidated Modernization Roadmap, N/UWSS System Architecture Objectives (contained in SOO paragraphs 3.1.1, 3.1.2, and 3.1.3), the N/UWSS Technical Architecture, the CINC C2 CONOPS, and the System Maturity Matrix (SMM). The above elements are living and will evolve with time. The Requirements Compact Disk (CD) contains: (a) the System Support Matrix (SSM) which identifies all of the systems in the As-Is operational system, (b) N/UWSS Operational Architecture, (c) MCCC Consolidated Modernization Roadmap, (d) N/UWSS Technical Architecture, (e) CINC C2 CONOPS, (f) draft SEWS requirements, and (g) the SMM.

## 2.0 Scope

2.1 The ISC2 contract will address USSPACECOM, NORAD and their component's BM/C2 and related requirements (e.g. N/UWSS)—both existing requirements as well as those needs (e.g., new C2 missions like Information Operations, Shared Early Warning and Space Battle Management and Control) emerging during the contract period of performance. The contract scope will also include system development, modification, integration, support, etc. for other organizations with related missions, for example, USSTRATCOM's Mobile Consolidated Command Center needs. The ISC2 contract will evolve the As-Is system to eliminate or mitigate the As-Is system shortcomings, per the N/UWSS Capstone Requirements Document (CRD), dated 21 Feb 99.

## 3.0 Specific ISC2 Objectives

3.1 Define and deliver a target system architecture to meet requirements specified on the Requirements CD, accommodate growth in functionality and external interfaces without major architecture redesign, reduce total ownership costs, improve interoperability for the warfighter, and apply the objectives specified below in 3.1.1, 3.1.2 and 3.1.3, as appropriate for fixed and mobile nodes.

3.1.1 Identify and implement a target system architecture that provides (a) standard data access methods/mechanisms for all ISC2 data (enterprise database), (b) a common Human Machine Interface (HMI) and standard enterprise workstation for all NORAD and USSPACECOM Command and Control (C2) Missions, (c) a Virtual Command Center (the ability to access mission data and information from a variety of locations including the Headquarters building), and (d) a product line oriented and DoD standards-based (currently DII COE/JTA) solution.

3.1.2 Ensure the target system architecture supports the following N/UWSS information pipeline capabilities: Automated Reconfiguration Communications, Near Real-Time Communications, Protected Communications, Survivable/Endurable Communications (Thinline), Bandwidth on Demand Communications, and Reconstitutable Communications.

3.1.3 Ensure the target system architecture provides operating configurations that allow testing of new capabilities without degradation of mission operations and allow the coexistence of real data with data that supports system testing, training, and exercises without ambiguity, commingling, or crossover. Provide mechanisms to ensure the logical separation and protection of non-real data from real mission data.

3.2 Implement, in partnership with the Government Program Manager, an approach to managing the ISC2 program that: a) maximizes flexibility; b) significantly increases efficiency; c) Reduces Total Ownership Cost (RTOC); d) identifies and manages risk; e) and generates, maintains and uses near real time data. This management approach must support: Program Planning and Budgeting System (PPBS) process activities, flexible allocation of resources, identification of cost reduction initiatives, C2 systems performance, status of projects, System Program Office (SPO) down-sizing, and inputs to simulation based acquisition.

3.3 Incorporate a disciplined risk management process across all aspects of ISC2 to facilitate attainment of all program objectives. Risk identification, analysis and mitigation efforts will drive identification and reporting of key program metrics. Establish a modeling and simulation capability to manage key risk areas throughout the program to effectively reduce life-cycle cost, perform Cost As an Independent Variable (CAIV) trades, and mitigate schedule and performance risks.

3.4 Manage the ISC2 Program to ensure efforts remain within cost and schedule. This management plan should describe the management processes the contractor has in place or plans to put in place to identify and track output-oriented metrics and tie them to cost data and program milestones. Data should come from existing processes the contractor currently uses to status programs, assess earned value and project EAC. This data, the IMEP, and the Award Fee Plan will be the basic tools used to manage the ISC2 program. The intent is to allow joint access to near real-time contract management data for contractor management and Government action as required.

3.5 Provide a long-term planning process to develop integrated solutions to sustaining required capability, evolving legacy systems, and developing new C2 capabilities (to include all Integrated Logistics Support (ILS) elements) to achieve the objectives described in paragraphs 3.1, 3.1.1, 3.1.2, and 3.1.3. The process must address the implementation of the Users Integrated C2 Vision using the following user defined priorities: (a) maintain mission integrity, (b) legacy system migration (with emphasis on improving CMOC command center operations), (c) new mission capability and integration with on-going initiatives, and (d) enhance legacy systems.

3.6 Document the existing baseline in a Technical Requirements Baseline (TRB) as defined in CDRL. Develop a sustainment baseline that allocates the As-Is performance requirements to the As-Is operational and system architectural views. Sustain and maintain the system to that baseline. Update the baseline as required, per the implementation of the IMEP.

3.7 Maintain data for use by another contractor with comparable skills and experience to fulfill the terms of the contract for recompetition. All recompetition data is desired in electronic format and accessible through the implementation of an enterprise information system to the greatest extent practicable for all sustainment activities, and ongoing and completed IMEP projects.

3.8 Ensure mission integrity of the sustainment baseline. Mission integrity requirements are communicated in the system maturity matrix (SMM) Section I.

3.9 Ensure C2 continuity of operations is maintained throughout the contract period of performance to include system evolution to a common, integrated C2 system as well as a seamless contract transition of the activities and functions currently performed by incumbent contractors and/or Government organizations.

3.10 Create a long-term Government/Contractor partnership with the contractor realizing a sense of program ownership to include corporate commitment and allow the Government to reduce the size of the System Program Office (SPO) in the context of TSPR.

3.11 Implement integrated business, design, requirements, development, test, sustainment, training, maintenance, system security administration, operational support and engineering processes targeted at rapidly fielding C2 products using much shorter product development cycles when measured against the project start and stop times in the IMEP. Pursue and implement continuous process improvement, applying Business Process Re-engineering and other techniques when appropriate. Contractor proposed changes to Government processes require Government approval.

3.12 Establish Evolution and Sustainment processes that include distinct planning and decision making with the ISC2 stakeholders that iteratively analyze and refine requirements and conduct cost/schedule/performance trade-offs for capability deployments. Ensure these processes encompass appropriate testing; experimentation; training; and equipment analysis, design, development, implementation and evaluation.

3.13 Maximize cost effective Contractor Logistics Support (CLS) consistent with the warfighter's CONOPS, to include changing the functions already performed under CLS and/or bringing additional systems under CLS. Systems are identified in the Systems Support Matrix.<sup>1</sup>

3.14 Meet 24/7 system availability and performance requirements, to include Emergency On-Site (hardware/software) Maintenance (EOSM), on-call engineering, vendor support, help desks, and O-level maintenance for migrated systems.

3.15 Assume Organizational –Level (O-Level) maintenance responsibility for new C2 and legacy operational systems. For Cheyenne Mountain, this will include all C2 systems and supporting communication/computer infrastructure identified in the SSM. MCCC O-level maintenance is expected to remain organic.

3.16 Establish a proactive process to ensure Operational Safety, Suitability, and Effectiveness (OSS&E) objectives within the ISC2 engineering and sustainment processes.

3.17 Assume test management and administration responsibilities for all ISC2 migration, sustainment, and external integration activities (i.e. NMD, SBIRS, SBMCS, GCCS, R/SAOC, AOC, etc) as the working arm of the Responsible Test Organization (RTO) within the Combined Test Force (CTF). These responsibilities will require the contractor to perform or support all phases of the test process including: planning, preparation, conduct, analysis, and reporting. The contractor will carry primary testing responsibility through DT&E and will support those testing events conducted by the government.

3.18 Maintain current domain knowledge and influence the evolution of Government standards, such as DII/COE, JTA, and GCCS.

3.19 Manage and facilitate integration with systems outside the ISC2 contract.

3.20 Establish a comprehensive and integrated training program for the life cycle of all systems within the ISC2 contract. The Government has established a Combined Training Team (CTT) to support this objective. The Government intends for the contractor to act as the CTT's single training manager for all ISC2 training activities including planning, design, development, implementation and evaluation of the integrated training program. At the outset of ISC2, the minimum the contractor must provide is initial training provisioning (resources, materials, equipment) for new, migrated, and legacy systems in a manner consistent with the Government's desire to achieve a fully integrated training program. Opportunities exist for the contractor's role to expand through the implementation of Business Process Re-engineering focused on improving training across the full spectrum.

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<sup>1</sup> These elements will be provided to the contractors in a Requirements Compact Disk (CD).

3.21 Provide SPO level integration, systems engineering and test support across SPO programs. The minimum functions the ISC2 contractor must cover are: (a) requirements impact analysis, coordination, and allocation, (b) integrated cross-SPO architecture activities, (c) configuration management activities, (d) system-of-systems level enterprise information system, (e) integrated scheduling, (f) integration issue identification, tracking, and resolution, (g) logistics planning for architecture evolution.

#### **4.0 Specific Objectives for the ISC2 Migration Demonstration (MD) Phase**

Increase the Government's confidence in contractor's ability to implement their evolution strategy by clearly addressing key risk factors.

4.1 Delivery of a credible ISC2 Master Evolution Plan.

4.2 Delivery of a report describing progress toward the proposed target system architecture.